



Last Updated 27-04-2011

# Tansy Ragwort (*Jacobaea vulgaris*)

aka Stinking Willie, Staggerwort, Tansy Butterweed

**Provincial Designation:** Prohibited Noxious

## Overview:

Tansy Ragwort is a biennial or perennial in the sunflower family. Although normally short-lived, plants may remain in the rosette stage for several years if damaged or subjected to intense competition.<sup>1</sup> Tansy Ragwort is native to Europe, Asia and Siberia and is thought to have been introduced to Canada in the 1850s in ship's ballast<sup>2</sup> and as a medicinal herb. It has since spread mostly as an impurity in hay.<sup>3</sup>

Tansy Ragwort is an aggressive plant that quickly establishes on disturbed sites.<sup>4</sup> In Prince Edward Island, it has reduced pasture yields by 50%.<sup>2</sup> The weed also invades woodlands, decreasing biodiversity. Evidence suggests that it can release toxins into the soil, harming nearby plants.<sup>3</sup> Alkaloids within the plant also make it toxic to livestock, causing irreversible liver damage. Cattle and horses typically do not graze it but can be poisoned by contaminated hay or silage.<sup>4</sup>



Photo: Eric Coombs, Oregon Department of Agriculture, Bugwood.org

## Habitat:

Tansy Ragwort prefers sites with full sun to partial shade and well-drained, medium to light soils.<sup>3</sup> The plant is generally absent in areas with a high water table.<sup>2</sup> In Eastern Canada it is most commonly found in pastures, hay fields, waste places, roadsides and forest edges.<sup>2</sup>

## Identification:

**Stems:** One-several erect stems are 0.2-1.2 m in height.<sup>5</sup> Stems are often purplish and many-branched near the tips.<sup>3</sup>

**Leaves:** Rosette leaves are stalked, dark-green, 7-20 cm long with deeply indented and blunt toothed lobes giving them a ruffled or ragged appearance. Upper leaves are similar in shape but much smaller in size and stalkless. Both types of leaves are somewhat hairy on the underside.<sup>4</sup>

**Flowers:** Heads of usually 13 yellow ray and numerous yellow disc flowers are located in flat-topped clusters.<sup>2</sup> The bracts surrounding each head are black-tipped and in a single row.<sup>5</sup>

**Seeds:** Two forms of ribbed fruits (achenes) are produced. Those from disc flowers are hairy while the ones produced by rays are smooth.<sup>6</sup> Both forms are rectangular, with a white cluster of hairs (pappus) at the top and approximately 3 mm in length.<sup>5</sup>



Photo by Richard Old, XID Services Inc., Bugwood.org

## Prevention:

The best way to avoid Tansy Ragwort is to monitor pastures for new populations.<sup>5</sup> If detected, plants should be hand-pulled taking care to remove the root. Remnants of root left behind will re-sprout to form new plants.<sup>4</sup> Plants already in flower must be carefully bagged and burned.<sup>3</sup> Forage seed can be a source of new infestations. Buying certified seed will reduce spread since Tansy Ragwort is listed as a prohibited noxious weed in the Canada Seeds Act.<sup>7</sup>

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# Tansy Ragwort (continued)

## Control:

**Cultural:** Densely seeded pastures deter Tansy Ragwort because its seedlings are poor competitors.<sup>2</sup> Covering bare sites with mulch will also help to prevent germination of the weed.<sup>4</sup>

**Grazing:** Sheep are able to consume Tansy Ragwort without any ill effects and have been used extensively in New Zealand for control.<sup>6</sup>

**Mechanical:** Mowing is not recommended. It will prevent seed production but it will also cause plants to develop multiple crowns and a perennial habit.<sup>6</sup>

**Chemical:**<sup>9</sup> At the present time glyphosate-based products are considered the most effective for control of Tansy Ragwort. Product labels should be checked carefully to ensure the use is approved. Care must be taken to protect non-target vegetation when using non-selective herbicides.

**Biological:** Biocontrol has been used on Tansy Ragwort in British Columbia since the introduction of the cinnabar moth (*Tyria jacobaea*) in 1962. Four additional agents (one fly, two beetles and a moth) have been released with varying degrees of success.<sup>8</sup> It appears that effects are mostly localized and long-term biological control of Tansy Ragwort has yet to be achieved.



Photo: Eric Coombs, Oregon Department of Agriculture, Bugwood.org



Flowers

Photo: Michael Shephard, USDA Forest Service, Bugwood.org



Seed Heads

Photo: Leslie J. Mehrhoff, University of Connecticut, Bugwood.org



Seedlings

Photo: Utah State University Archive, Utah State University, Bugwood.org

## REFERENCES

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- 3 *Senecio jacobaea* and *vulgaris* – Tansy Ragwort and Common Groundsel <http://www.goert.ca/documents/S.jacobaea.pdf>
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- 6 Mitich, L. 1995. Intriguing World of Weeds: Tansy Ragwort. Weed Tech. 9:402-404
- 7 Canada Seeds Act – Weed Seeds Order <http://laws-lois.justice.gc.ca>
- 8 Invasive Plants of the Okanagan - Similkameen: Tansy Ragwort [http://www.sosips.ca/FACTSHEET\\_TR\\_FINAL\\_NOV2005.pdf](http://www.sosips.ca/FACTSHEET_TR_FINAL_NOV2005.pdf)
- 9 Always follow the product labels. The use of pesticides in any manner not published on the label or registered under the *Minor Use of Pesticides* regulation constitutes an offence under both the *Federal Pest Control Products Act* and *Alberta's Environmental Protection and Enhancement Act*.